

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte SHINJI KODAMA

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Appeal No. 2000-0464  
Application No. 09/023,198

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HEARD: January 9, 2002

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Before HAIRSTON, DIXON, and GROSS, Administrative Patent Judges.  
GROSS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 8, which are all of the claims pending in this application.

Appellant's invention relates to a connector having a connector housing, a screw hole for fixing the connector housing to a printed circuit board, and a guide rib projecting from the bottom face of the connector housing. The guide rib includes a hollow groove around its base portion. The hollow groove avoids cracking when the connector housing is screwed

into the printed circuit board. Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. A connector comprising:

a connector housing;

a terminal provided on a bottom face of said connector housing and connected to a printed circuit board;

a guide rib protruding from said bottom face of said connector housing;

a hollow groove portion formed around a base portion of said guide rib on said bottom face of said connector housing; and

a screw hole, for fixing said connector housing to said printed circuit board, provided on said bottom face of said connector housing;

wherein the position of said connector housing with respect to said printed circuit board is determined by said guide rib.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Glomb et al. (Glomb)	4,710,132	Dec. 01,
1987		

Appellant's admitted prior art shown in Figures 4-6 and described in the specification on page 1, line 14-page 2, line (AAPA)

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Claims 1 through 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over AAPA in view of Glomb or, alternatively, over Glomb alone.

Reference is made to the Examiner's Answer (Paper No. 13, mailed September 14, 1999) for the examiner's complete reasoning in support of the rejections, and to appellant's Brief (Paper No. 12, filed July 6, 1999) and Reply Brief (Paper No. 14, filed November 12, 1999) for appellant's arguments thereagainst.

#### OPINION

We have carefully considered the claims, the applied prior art references, and the respective positions articulated by appellant and the examiner. As a consequence of our review, we will reverse the obviousness rejection of claims 1 through 8.

The examiner (Answer, page 3) admits that AAPA does not include a hollow groove around the base of the guide rib, as recited in independent claims 1 and 4. To remedy this deficiency, the examiner turns to Glomb. The examiner asserts (Answer, page 3) that it would have been obvious to modify AAPA "by having a hollow groove portion around a base portion

of a guide rib as taught by Glomb et al. to disperse the stress that occurs when the connector housing is fixed on the printed circuit board and to prevent a crack on the base portion of the guide rib."

The examiner fails to point out where the prior art suggests such a modification. We find the motivation provided by the examiner solely in appellant's specification (page 3, lines 16-20). In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. *Uniroyal, Inc. v. Rudkin-Wiley*, 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988), *cert. denied*, 488 U.S. 825 (1988); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), *cert. denied*, 475 U.S. 1017 (1986). These showings by the examiner are an essential part of complying with the burden of presenting a

*prima facie* case of obviousness. *Note In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

Furthermore, "[t]hat knowledge can not come from the applicant's invention itself." *Oetiker*, 977 F.2d at 1447, 24 USPQ2d at 1446. Thus, the examiner has failed to establish a *prima facie* case of obviousness.

We note that Glomb does suggest (column 2, lines 52-60) providing cavities 4 around posts 3. However, Glomb teaches that the cavities are to collect chips that arise due to the prescribed tolerances between the diameter of the posts and the diameter of the corresponding bores for press fitting the connector to the circuit board. As pointed out by appellant (Brief, page 5), since AAPA connects the connector to the printed circuit board using screws rather than by press fitting, the skilled artisan would not have expected any chips to arise and, therefore, would not have used Glomb's cavities with AAPA.

Regarding the rejection of the claims over Glomb alone, the claims require both a hollow groove portion around the base of the guide rib and also "a screw hole, for fixing said

connector housing to said printed circuit board, provided on said bottom face of said connector housing." Although Glomb does teach cavities 4 around posts 3, as described above, the object of Glomb is to eliminate the use of screws by using a press fit instead. Specifically, Glomb finds (column 1, lines 12-18) that a screw-type connection "requires a considerable outlay in terms of cost and labor." Therefore, Glomb states (column 1, lines 30-34), "With the provision of corresponding bores in the printed circuit board to receive the posts, it is thus possible to firmly connect the plug connector strip of the invention to the printed circuit board without special screwing work." Consequently, Glomb cannot be considered to include the claimed screw holes.

Further, it would not have been obvious to add such screw holes, as that would defeat the purpose of Glomb's invention. The Federal Circuit has held that "a proposed modification [is] inappropriate for an obviousness inquiry when the modification render[s] the prior art reference inoperable for its intended purpose. *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984)." *In re Fritch*, 972 F.2d

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1260, 1265-1266 n.12, 23 USPQ2d 1780, 1783 n.12 (Fed. Cir. 1992). Therefore, as we cannot accept the examiner's proposed modification of Glomb, the examiner again has failed to establish a *prima facie* case of obviousness. Accordingly, we cannot sustain the obviousness rejection of claims 1 through 8 over Glomb alone.

CONCLUSION

The decision of the examiner rejecting claims 1 through 8 under 35 U.S.C. § 103 is reversed.

REVERSED

KENNETH W. HAIRSTON	)	
Administrative Patent Judge	)	
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	)	
	)	BOARD OF PATENT
JOSEPH L. DIXON	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	

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ANITA PELLMAN GROSS )  
Administrative Patent Judge )

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